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From: Candace Crawford Legal Assistant to Ted Fay	No. of Pages Including Cover Sheet: 46

Message:

Enclosed herewith:

- Transmittal of Appeal Brief; and
- Appeal Brief.

Re: Application No. **09/726,014**
Attorney Docket No: **AUS9-2000-0489-US1**

Date: Monday, July 10, 2006

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE   **JUL 1 0 2006**

In re application of: Cole et al.	§	Group Art Unit: 2191
	§	
Serial No.: 09/726,014	§	Examiner: Qamrun Nahar
	§	
Filed: November 29, 2000	§	Attorney Docket No.: AUS9-2000-0489-US1
	§	
For: Business Systems Management: Realizing End-To-End Enterprise Systems Management Solution	§	

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PATENT TRADEMARK OFFICE
CUSTOMER NUMBER
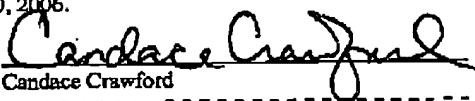
TRANSMITTAL OF APPEAL BRIEF

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:
ENCLOSED HEREWITH:

- Appeal Brief (37 C.F.R. 41.37)

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Respectfully submitted,
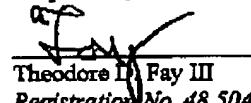
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Docket No. AUS9-2000-0489-US1   *PATENT*

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Cole et al. §	
§	Group Art Unit: 2191
Serial No. 09/726,014 §	
§	Examiner: Qamrun Nahar
Filed: November 29, 2000 §	
§	
For: **Business Systems Management:** §	
Realizing End-To-End Enterprise §	
Systems Management Solution	

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

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PATENT TRADEMARK OFFICE
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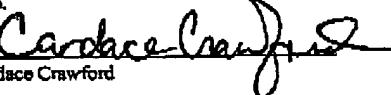
APPEAL BRIEF (37 C.F.R. 41.37)

This brief is in furtherance of the Notice of Appeal, filed in this case on May 10, 2006.

A fee of $500.00 is required for filing an Appeal Brief. Please charge this fee to IBM Corporation Deposit Account No. 09-0447. No additional fees are believed to be necessary. If, however, any additional fees are required, I authorize the Commissioner to charge these fees which may be required to IBM Corporation Deposit Account No. 09-0447. No extension of time is believed to be necessary. If, however, an extension of time is required, the extension is requested, and I authorize the Commissioner to charge any fees for this extension to IBM Corporation Deposit Account No. 09-0447.

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REAL PARTY IN INTEREST

The real party in interest in this appeal is the following party: International Business Machines Corporation of Armonk, New York.

RELATED APPEALS AND INTERFERENCES

With respect to other appeals or interferences that will directly affect, or be directly affected by, or have a bearing on the Board's decision in the pending appeal, there are no such appeals or interferences.

STATUS OF CLAIMS

A.   TOTAL NUMBER OF CLAIMS IN APPLICATION

Claims in the application are: 1-18

B.   STATUS OF ALL THE CLAIMS IN APPLICATION

1.   Claims canceled: None

2.   Claims withdrawn from consideration but not canceled: None

3.   Claims pending: 1-18

4.   Claims allowed: None

5.   Claims rejected: 1-18

6.   Claims objected to: None

C.   CLAIMS ON APPEAL

The claims on appeal are: 1-18

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STATUS OF AMENDMENTS

No amendments were filed after the final office action of February 24, 2006.

SUMMARY OF CLAIMED SUBJECT MATTER

A.   CLAIM 1 - INDEPENDENT

The subject matter of claim 1 is directed to integrating information technology components into a single application (Specification, p. 1, ll. 13-17). The present invention relates to the integration of disparate applications into a single functional application model that is then managed from an IT perspective as a single integrated system (Specification, p. 1, ll. 13-17). More specifically, claim 1 is directed to a method for integrating information technology components into a single end-to-end application (Specification, p. 1, ll. 13-17). The method includes decomposing a business process into a set of enabling applications (Specification, p. 3, ll. 8-17; p. 11, l. 17 through p. 12, l. 5; Figure 4, reference numeral 401). The method further includes documenting the technology elements and support organizations which are necessary to execute and manage the enabling applications of the business process (Specification, p. 3, ll. 8-17; p. 12, ll. 6-17; Figure 4, reference numeral 402). The method further includes deploying required monitors for the business process enabling technology (Specification, p. 3, ll. 8-17; p. 12, ll. 18-22; Figure 4, reference numeral 404). The method further includes developing cross-platform contextual correlation logic and rules (Specification, p. 3, ll. 8-17; p. 13, l. 28 through p. 14, l. 6; Figure 4, reference numeral 406). The method further includes mapping information technology severity to business impact severity, said mapping describing how technical problems relate to business processes including said business process (Specification, p. 12, l. 23 through p. 13, l. 23). The method further includes quantifying, using said mapping, business losses due to particular technical failures (Specification, p. 12, l. 3 through p. 14, l. 1). The method further includes developing an end-to-end business process event management platform (Specification, p. 13, l. 28 through p. 14, l. 15; Figure 4, reference numeral 408).

B.   CLAIM 7 - INDEPENDENT

The subject matter of claim 7 is directed to integrating information technology components into a single application (Specification, p. 1, ll. 13-17). The present invention relates to the integration of disparate applications into a single functional application model that is then managed from an IT perspective as a single integrated system (Specification, p. 1, ll. 13-17). More

specifically, claim 7 is directed to a computer program product in a computer readable medium, for use in a data processing system, for integrating information technology components into a single end-to-end application (Specification, p. 1, ll. 13-17). The computer program product further includes instructions for decomposing a business process into a set of enabling applications (Specification, p. 3, ll. 8-17; p. 11, l. 17 through p. 12, l. 5; Figure 4, reference numeral 401). The computer program product further includes instructions for documenting the technology elements and support organizations which are necessary to execute and manage the enabling applications of the business process (Specification, p. 3, ll. 8-17; p. 12, ll. 6-17; Figure 4, reference numeral 402). The computer program product further includes instructions for deploying required monitors for the business process enabling technology (Specification, p. 3, ll. 8-17; p. 12, ll. 18-22; Figure 4, reference numeral 404). The computer program product further includes instructions for the development of cross-platform contextual correlation logic and rules (Specification, p. 3, ll. 8-17; p. 13, l. 28 through p. 14, l. 6; Figure 4, reference numeral 406). The computer program product further includes instructions for mapping information technology severity to business impact severity, said mapping describing how technical problems relate to business processes including said business process (Specification, p. 12, l. 23 through p. 13, l. 23). The computer program product further includes instructions for quantifying, using said mapping, business losses due to particular technical failures (Specification, p. 12, l. 3 through p. 14, l. 1). The computer program product further includes instructions for developing an end-to-end business process event management platform (Specification, p. 13, l. 28 through p. 14, l. 15; Figure 4, reference numeral 408).

C.   CLAIM 13 - INDEPENDENT

The subject matter of claim 13 is directed to integrating information technology components into a single application (Specification, p. 1, ll. 13-17). The present invention relates to the integration of disparate applications into a single functional application model that is then managed from an IT perspective as a single integrated system (Specification, p. 1, ll. 13-17). More specifically, claim 13 is directed to a system having means for integrating information technology components into a single end-to-end application (Specification, p. 1, ll. 13-17; p. 6, l. 24 through p. 11, l. 13; Figure 1, reference numeral 100; Figure 2, reference numeral 200; Figure 3, reference

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PAGE 9/46 * RCVD AT 7/10/2006 5:15:46 PM [Eastern Daylight Time] * SVR:USPTO-EFXRF-6/30 * DNIS:2738300 * CSID:972 385 7766 * DURATION (mm-ss):12-24

numeral 300). The system includes means for decomposing a business process into a set of enabling applications (Specification, p. 3, ll. 8-17; p. 11, l. 17 through p. 12, l. 5; p. 6, l. 24 through p. 11, l. 13;Figure 4, reference numeral 401; Figure 1, reference numeral 100; Figure 2, reference numeral 200; Figure 3, reference numeral 300). The system further includes means for documenting the technology elements and support organizations which are necessary to execute the enabling applications of the business process (Specification, p. 3, ll. 8-17; p. 12, ll. 6-17; p. 6, l. 24 through p. 11, l. 13; Figure 4, reference numeral 402; Figure 1, reference numeral 100; Figure 2, reference numeral 200; Figure 3, reference numeral 300). The system further includes means for deploying required monitors for the business process enabling technology (Specification, p. 3, ll. 8-17; p. 12, ll. 18-22; p. 6, l. 24 through p. 11, l. 13; Figure 4, reference numeral 404; Figure 1, reference numeral 100; Figure 2, reference numeral 200; Figure 3, reference numeral 300). The system further includes means for developing the cross-platform contextual correlation logic and rules (Specification, p. 3, ll. 8-17; p. 13, l. 28 through p. 14, l. 6; p. 6, l. 24 through p. 11, l. 13; Figure 4, reference numeral 406; Figure 1, reference numeral 100; Figure 2, reference numeral 200; Figure 3, reference numeral 300). The system further includes means for mapping information technology severity to business impact severity, said mapping describing how technical problems relate to business processes including said business process (Specification, p. 12, l. 23 through p. 13, l. 23 p. 6, l. 24 through p. 11, l. 13; Figure 1, reference numeral 100; Figure 2, reference numeral 200; Figure 3, reference numeral 300). The system further includes using said mapping for quantifying business losses due to particular technical failures (Specification, p. 12, l. 3 through p. 14, l; 1 p. 6, l. 24 through p. 11, l. 13; Figure 1, reference numeral 100; Figure 2, reference numeral 200; Figure 3, reference numeral 300). The system further includes means for developing an end-to-end business process event management platform (Specification, p. 13, l. 28 through p. 14, l. 15; p. 6, l. 24 through p. 11, l. 13; Figure 4, reference numeral 408; Figure 1, reference numeral 100; Figure 2, reference numeral 200; Figure 3, reference numeral 300).

D.   CLAIM 14 - DEPENDENT

Claim 14 is directed to the system of claim 13, wherein the means for decomposing the business process further comprise means for developing an application model which describes the interactions, interdependencies and interfaces of all the business process enabling applications

(Specification, p. 11, l. 14 through p. 12, l. 5; Figure 1, reference numeral 100; Figure 2, reference numeral 200; Figure 3, reference numeral 300).

E.   CLAIM 15 - DEPENDENT

Claim 15 is directed to the system of claim 13, further comprising means for building a business system management configuration database (Specification, p. 12, ll. 6-22; Figure 1, reference numeral 100; Figure 2, reference numeral 200; Figure 3, reference numeral 300).

GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

A.   GROUND OF REJECTION 1 (Claims 1-18)

Whether claims 1-18 comply with the written description requirement under 35 U.S.C. § 112, first paragraph.

B.   GROUND OF REJECTION 2 (Claims 7-12)

Whether claims 7-12 are statutory under 35 U.S.C. § 101.

C.   GROUND OF REJECTION 3 (Claims 1-18)

Whether claims 1-18 are not anticipated by *Cox* et al., <u>Adaptive Feedback Control in E-Service Management</u>, U.S. Patent 6,856,983 (February 15, 2005) (hereinafter, "*Cox*").

ARGUMENT

A.   GROUND OF REJECTION 1 (Claims 1-18)

A.1.   Response to the Rejection

The examiner rejects claims 1-18 as failing to comply with the written description requirement under 35 U.S.C. § 112, first paragraph. In most relevant part, the examiner states:

> Claims 1, 7 and 13 substantially recite the limitation, "quantifying, using said mapping, business losses due to particular technical failures", however, this limitation does not have sufficient support in the specification. The specification states "It is important to identify the metric used by the business to gauge the economic health of the business process in order to quantify the costs and benefits of implementing a solution." on pg. 11, line 30 to pg. 12, line 1; and further states "Of absolute importance to this step is a metric to allow the quantification of business losses due to particular IT failures." on pg. 12, lines 30-32. These are the only two sentences in the specification that describes quantifying/quantification. However, sufficient support is not provided for this limitation. That is, what is the metric and how is the business losses measured and quantified.
>
> Furthermore, the Business System Management (BSB) configuration database is built *during the claimed mapping step*, where the mapping information is stored; and the correlation logic and rules is developed *during the claimed "developing cross-platform contextual correlation logic and rules"*. The step of "quantifying, using said mapping, business losses due to particular technical failures" is done after the claimed mapping step.

Final office action of February 24, 2006, pp. 2-3 (emphasis in original). However, the rejection is clearly in error.

The examiner bears the initial burden to establish a reasonable basis to question the enablement provided for the claimed invention. *Genentech v. Wellcome Foundation*, 29 F3D 1555, 1562 (Fed. Cir. 1994). In this case, the examiner has failed to establish a reasonable basis to question the enablement provided for the claimed invention. As shown below, the feature of "quantifying, using said mapping, business losses due to particular technical failures" is fully supported in the written description of the application.

Furthermore, the test for enablement is whether one reasonably skilled in the art could make or use the invention from the disclosures in the patent coupled with information known in

the art without undue experimentation. *In re Buchner*, 929 F.2d 660, 661 (Fed. Cir. 1991). As long as the specification discloses at least one method for making and using the claimed invention that bears a reasonable correlation to the entire scope of the claim, then the enablement requirement is satisfied. *In re Fisher*, 427 F.2d 833, 839 (CCPA 1970). As shown below, claim 1 meets the test for enablement set forth by *In re Buchner*.

Claim 1 is a representative claim of this grouping of claims for purposes of this rejection. Claim 1 is as follows:

> 1.   A method for integrating information technology components into a single end-to-end application, comprising:
>> decomposing a business process into a set of enabling applications;
>> documenting the technology elements and support organizations which are necessary to execute and manage the enabling applications of the business process;
>> deploying required monitors for the business process enabling technology;
>> developing cross-platform contextual correlation logic and rules;
>> mapping information technology severity to business impact severity, said mapping describing how technical problems relate to business processes including said business process;
>> quantifying, using said mapping, business losses due to particular technical failures; and
>> developing an end-to-end business process event management platform.

The specification allows one reasonably skilled in the art to make and use the invention of claim 1. Additionally, the specification discloses at least one method for making and using the claimed invention. For example, the specification provides that:

> The present invention provides a method for integrating the many heterogeneous IT components (application, database, server, network) which enable a business process into a single end-to-end management platform. The method comprises decomposing a business process (intra-enterprise, extra-enterprise (i.e. multiple business entities) or both) into a set of enabling applications and then documenting the technology elements and support organizations which are necessary to execute and manage those enabling applications. The required monitors for the business process enabling technology can be deployed which not only monitor the discreet IT components but also the interfaces between them that are imposed by the business process itself. An important, and unique, feature of this method is the ability to map technology problems to business problem and the development of cross-platform contextual (business process context)

correlation rules. This information is then used to develop an end-to-end business process event management platform (can be used for other systems management processes as well such as Performance Management), which can be integrated into any preexisting event management (systems management) process. In one embodiment of the present invention, the event management platform can be constructed between several business entities.

Specification, p. 3, ll. 4-29.

This portion of the specification, which the examiner ignored in both the first office action and in the final office action, states that unique features of the method include the ability to map technology problems to business problems and the development of cross-platform contextual correlation rules. One of ordinary skill knows what these terms mean and knows that many types of methods may be used to quantify business and technology problems, such as through the use databases and rules as described below. Thus, one of ordinary skill could quantify, using said mapping, business losses due to particular failures using the correlation rules.

In addition, the specification provides that:

> *After business decomposition, the next step is technical decomposition (step 402). This involves identifying and documenting all of the technology elements and support organizations which are necessary to execute the enabling applications of a particular business process. As the technology is identified, it is important to have the subject matter experts explain the events, monitors, and management systems that are currently in place. With the business process decomposed into its parts and traced to the relevant IT technology components, a Business System Management (BSM) configuration database can be built (step 403).*
>
> With the BSM database established, monitors for the business process enabling technology can be designed and deployed (step 404). The monitors allow the design team to precisely document the particular IT functions occurring during a specific business process.
>
> *Through proper monitoring, it is then possible to properly map IT severity to business impact severity (step 405). This mapping helps to present a clearer picture of how IT technical problems relate to business processes and is crucial to integrating the IT infrastructure into a single end-to-end application aimed at optimizing business processes (from an IT perspective). For example, it is possible that an IT failure may have no discernible effect on a business process. By the same token, a given IT failure may affect one business process substantially, but not another. Of absolute importance to this step is a metric to allow the quantification of*

business losses due to particular IT failures.

Currently, IT components are compartmentalized into isolated towers, as explained above. *When implementing a business process, these IT towers are only aware of their own particular performance, without any knowledge of how that performance interacts with other IT towers and, ultimately, the business process. For example, the support team for a mainframe computer within the network may be able to show that the mainframe was up and operational 98% of a specified time period. However, this, in and of itself, reveals nothing concerning impact on the business process supported by the mainframe.*

As a further example, if each isolated tower is functioning within acceptable parameters and only one is operating near the margin of its performance tolerance, there might be no effect upon the business process. However, if several of the towers are at the margin of their respective tolerances, the aggregate effect could disrupt the business process as a whole, even though each tower is working within its own "acceptable" range. Properly mapping the IT severity to the business impact severity presents a much clearer picture of how disparate IT performance parameters interact and affect the overall business process.

It is now possible to develop correlation logic and rules within a business context (step 406), which will enable the formulation of a business process view that integrates technical and business concerns into a unified conceptual structure (step 407). From here, an integrated end-to-end event management platform can be developed for the business process (step 408). In essence, this event management platform is a "super" application custom fitted to a specific business process and is constructed using several smaller, disparate applications, and their associated IT elements.

Specification, p. 12, l. 3 through p. 14, l. 1 (emphasis supplied).

As a whole, the quoted section of the specification clearly enables the claimed feature of "quantifying, using said mapping, business losses due to particular technical failures." The specification states that, *"Through proper monitoring, it is then possible to properly map IT severity to business impact severity (step 405)."* Specification, p. 12, ll. 19-21. The monitors are built using the business system management database. Specification, p. 12, ll. 14-16. In turn, the BSM database is built from the decomposed business process and IT components. Specification, p.12, ll. 4-14. One of ordinary skill in this art can easily interpret these paragraphs to make and use the claimed invention without undue experimentation.

In addition, the quoted text provides at least one example of making and using the claimed invention. The example regarding IT towers and a business process on page 13, ll. 1-23 (quoted above) clearly illustrates the claimed step.

Nevertheless, the examiner still asserts that the specification and claims do not meet the requirements of 35 U.S.C. § 112, first paragraph. However, the examiner only quotes limited sections of the specification when attempting to support the rejection.

The examiner appears to assert that the claimed step is not supported by the specification because the specification does not state "what is the metric" as recited in the specification and the specification does not state "how is the business losses measured and quantified" in the specification. The examiner quotes the specification at p. 11, l. 30 through p. 12, l. 1 and p. 12, ll. 30-32 for these assertions.

Regarding the term "metric," this term does not appear in the claims. In view of the fact that the enablement requirement of 35 U.S.C. § 112, first paragraph, is separate and distinct from the description requirement (*Vas-Cath, Inc. v. Mahurkar*, 935 F.2d 155, 1563 (Fed. Cir. 1991)), the examiner must be addressing the objection to the specification in this portion of the rejection. The term "metric" is interpreted in the light of the previous disclosure regarding decomposition of business processes and IT components into a database and in the further light regarding construction of correlation rules as described above and as claimed in claim 1. The metric to allow the quantification of business losses due to particular IT failures is built upon the information in the database and upon the correlation rules. Anyone of ordinary skill can understand how this can be accomplished without undue experimentation. An exact description of how the database and the correlation rules operate is not necessary because of one ordinary skill can create the metric based on the previous disclosures. See, for example, *Buchner* at 661 (Furthermore, a patent need not teach, and *preferably omits* what is well known in the art) (Emphasis added). Because the reference to a metric is clearly supported by the surrounding description in the specification, the examiner does not have a reasonable basis to object to the specification in this regard.

Additionally, regarding the claimed step of "quantifying, using said mapping, business losses due to particular technical failures," the examiner asserts that the provision of how business losses are measured and quantified is not enabled by the specification. However, as shown above, the specification clearly provides how business losses are measured and quantified. The process of business and technical decomposition, as provided in the specification at p. 12, ll. 2-13 describes how business losses are quantified. Monitors, as

provided in the specification at p. 12, l. 14-19, describes how business losses are measured. Because the specification directly contradicts the examiner's assertions, the examiner does not have a reasonable basis to assert that the claims are not enabled under 35 U.S.C. § 112, first paragraph.

For the above reasons, the specification lends proper support for the feature "quantifying, using said mapping, business losses due to particular technical failures" of claim 1 as required under 35 U.S.C. § 112, first paragraph. Thus, the rejection of the claims under 35 U.S.C. § 112, first paragraph is without foundation. Similarly, the objection to the specification under 35 U.S.C. § 112, first paragraph is without foundation. Therefore, this rejection of claim 1, and the remaining claims in this grouping of claims, has been overcome.

A.2.   Rebuttal to the Examiner's Response

In response to these arguments, the examiner asserts that:

> The examiner has established a reasonable basis. In support of applicant's assertion, applicant points to features in the specification such as Business System Management (BSB) configuration database, and correlation logic and rules.

> First, the Business System Management (BSB) configuration database is built *during the claimed mapping step*, where the mapping information is stored.

> Second, the correlation logic and rules is developed *during the claimed "developing cross-platform contextual correlation logic and rules"*.

> The step of "quantifying, suing said mapping, business losses due to particular technical failures" is done after the claimed mapping step.

> The specification does not have enough support. In addition, see the rejection above in paragraph section for rejection to claims 1-18.

Final office action of February 24, 2006, p. 9 (emphasis in original).

On its face, the examiner's statement fails to comport with the test set forth by *In re Buchner*. As stated above, the test for enablement is whether one reasonably skilled in the art could make or use the invention from the disclosures in the patent coupled with information known in the art without undue experimentation. *In re Buchner*, 929 F.2d 660, 661 (Fed. Cir. 1991).

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PAGE 18/46 * RCVD AT 7/10/2006 5:15:46 PM [Eastern Daylight Time] * SVR:USPTO-EFXRF-6/30 * DNIS:2738300 * CSID:972 385 7766 * DURATION (mm-ss):12-24

Nothing in the rejection itself or in the examiner's response actually provides a reason why one of ordinary skill in the art could not make or use the claimed invention without undue experimentation.

Instead, the examiner simply states purported facts and then – without support or argument – concludes that the specification does not provide support for the claimed invention. Even assuming, *arguendo*, that the asserted facts are true, the examiner still carries the burden to establish that those facts would logically lead one of ordinary skill to conclude that he or she could not make or use the invention without undue experimentation. The examiner has provided no reason or logic to support this conclusion in light of the purported facts. Therefore, on the face of the rejection and response alone, the examiner has failed to meet the examiner's burden that claim 1 is not enabled under 35 U.S.C. § 112, first paragraph.

Additionally, the examiner's response does not make sense. Assuming, *arguendo*, that all of the purported facts are true, Applicants can discern no logical way to conclude that one of ordinary skill could not make or use the invention without undo experimentation under the standards of *In re Buchner*. The examiner's statements are directed towards the supposed sequence in which the claimed steps must take place. However, the sequence of steps is irrelevant to whether one of ordinary skill could make or use the invention without undo experimentation. So long as all required steps are present and so long as one of ordinary skill can make or use the invention without undo experimentation, claim 1 is enabled. As shown above, the specification provides abundant disclosure to enable one of ordinary skill to make and use the invention of claim 1. Therefore, claim 1 is enabled under 35 U.S.C. § 112, first paragraph.

B.   GROUND OF REJECTION 2 (Claims 7-12)

B.1.   Response to the Rejection

The examiner rejects claims 7-12 under 35 U.S.C. § 101 as directed towards non-statutory subject matter. The examiner states in most relevant part that:

> "Claims 7-12, reciting a computer program product in a computer readable medium, are not limited to tangible storage devices in view of pg. 14, line 31 to pg. *15*, line 4, in the instant specification, which suggests that such a medium may be a carrier wave or transmission medium (intangible). Accordingly, claims 7-12 do not recite tangible manufactures, and are non-statutory subject matter.

> The Office's current position is that claims involving signals encoded with functional descriptive material do not fall within any of the categories of patentable subject matter set forth in 35 U.S.C. § 101, and such claims are therefore ineligible for patent protection. *See* 1300 OG 142 (November 22, 2005), in particular, see Annex IV(c).

Final office action of February 24, 2006, pp. 3-4 (emphasis in the original).

However, the rejection is incorrect in view of new guidelines covering patentability of claims directed to a process in a computer readable medium. The USPTO guidelines for evaluating computer-readable medium encoded with functional descriptive material, such as a computer program, expressly states that a claim to such computer-readable medium when so encoded is statutory subject matter. USPTO, *Interim Guideline for Examination of Patent Application for Patent Subject Matter Eligibility* (26 Oct. 2005) (hereinafter "Guideline"). The Guideline provides, in relevant part:

> "[A] claimed computer-readable medium encoded with a data structure defines structural and functional interrelationships between the data structure and the computer software and hardware components which permit the data structure's functionality to be realized, and is thus statutory."

Id., p. 52. The Guideline further provides:

> Claims that recite nothing but the physical characteristics of a form of energy, such as a frequency, voltage, or the strength of a magnetic field, define energy or magnetism, per se, and as such are nonstatutory natural phenomena. O'Reilly, 56 U.S. (15 How.) at 112-14. Moreover, it does not appear that a claim reciting a signal encoded with functional descriptive material falls within any of the categories of patentable subject matter set forth in § 101.
>
> ...
>
> These interim guidelines propose that such signal claims are ineligible for patent protection because they do not fall within any of the four statutory classes of § 101. Public comment is sought for further evaluation of this question.

Id., pp. 55-56.

Claim 7 is a representative claims in this grouping of claims. Claim 7 is as follows:

> 7.   A computer program product in a computer readable medium, for use in a data processing system, for integrating information technology components into a single end-to-end application, comprising:
>   instructions for decomposing a business process into a set of

enabling applications;

instructions for documenting the technology elements and support organizations which are necessary to execute and manage the enabling applications of the business process;

instructions for deploying required monitors for the business process enabling technology;

instructions for the development of cross-platform contextual correlation logic and rules;

instructions for mapping information technology severity to business impact severity, said mapping describing how technical problems relate to business processes including said business process;

instructions for quantifying, using said mapping, business losses due to particular technical failures; and

instructions for developing an end-to-end business process event management platform.

Claim 7 is directed to a computer program product in a computer readable medium. Furthermore, the computer program product is for use in a data processing system. As the Guideline provides, "a computer readable medium with a data structure defines structural and functional interrelationships between the data structure and the computer software and hardware components which permit the data structure's functionality to be realized" is statutory. Because claim 7 recites a computer program product for use in a data processing system, along with the other recited steps, claim 7 does describe a data structure that defines structural and functional interrelationships between the data structure and the computer software and hardware components which permit the data structure's functionality to be realized. Thus, claim 7 is patentable subject mater under 35 U.S.C. § 101, as explained under the Guideline.

In addition, the instant claim does not recite a signal. Rather, the claim recites a "computer readable medium" in which a signal is embedded. Claim 7 claims functional descriptive material encoded on a computer readable medium and does not claim signals encoded with functional descriptive material. For this reason, claim 7 thus falls under allowable statutory matter under 35 U.S.C. § 101. This assertion is fully supported by the specification that provides:

"Examples of computer readable media include recordable-type media, such as a floppy disk, a hard disk drive, a RAM, CD-ROMs, DVD-ROMs, and *transmission-type media*, such as digital and analog communication links, *wired or wireless communications links using* transmission forms, such as, for example, radio frequency and light wave transmissions."

Specification, pp. 14-15. (Emphasis added)

The specification and claim 7 are statutory subject matter because the claim is directed towards the *medium*, and not to the radio frequency or the light wave signals that may inherently be *used* in such media technologies. The use of radio frequency or light wave as a method of encoding or recording the computer program on to such medium does not render the medium itself non-statutory. Even in case of a CD-ROM, a laser form of light wave is used for accomplishing the encoding/recording of the information on to the CD-ROM, yet the CD-ROM remains a well-accepted computer readable medium. Encoding the air or glass fiber medium with radio frequency or light wave similarly cannot render the air or glass fiber medium non-statutory under § 101.

Thus, based on the MPEP and applicable case law, claim 7 is statutory under 35 U.S.C. § 101. Accordingly, Applicants respectfully request withdrawal of the rejection of claim 7 under 35 U.S.C. § 101. By virtue of their dependence from claim 7, the rejection of claims 8-12 should also be withdrawn.

B.2.   Rebuttal to the Examiner's Response

In response, the examiner states that:

> The specification describes the use of the term "computer readable medium"
> as embracing such non-tangible embodiments as carrier waves and
> information transmission media. Specification, pg. 14, line 31 to page 15,
> line 4. The Office's current position is that claims involving signals
> encoded with functional descriptive material do not fall within any of the
> categories of patentable subject matter set forth in 35 U.S.C. § 101, and such
> claims are therefore ineligible for patent protection. *See* 1300 OG 142
> (November 22, 2005), in particular, see Annex IV(C).

Final office action of February 24, 2006, p. 8 (emphasis in original).

The cited portion of the Guidelines is as follows:

> Claims that recite nothing but the physical characteristics of a form of
> energy, such as a frequency, voltage, or the strength of a magnetic field,
> define energy or magnetism, per se, and as such are nonstatutory natural
> phenomena. O'Reilly, 56 U.S. (15 How.) at 112-14. Moreover, it does not
> appear that a claim reciting a signal encoded with functional descriptive
> material falls within any of the categories of patentable subject matter set
> forth in Sec. 101.
>
> First, a claimed signal is clearly not a "process" under Sec. 101 because it is
> not a series of steps. The other three Sec. 101 classes of machine,
> compositions of matter and manufactures "relate to structural entities and

can be grouped as 'product' claims in order to contrast them with process claims." 1 D. Chisum, Patents Sec. 1.02 (1994). The three product classes have traditionally required physical structure or material.

"The term machine includes every mechanical device or combination of mechanical device or combination of mechanical powers and devices to perform some function and produce a certain effect or result." Corning v. Burden, 56 U.S. (15 How.) 252, 267 (1854). A modern definition of machine would no doubt include electronic devices which perform functions. Indeed, devices such as flip-flops and computers are referred to in computer science as sequential machines. A claimed signal has no physical structure, does not itself perform any useful, concrete and tangible result and, thus, does not fit within the definition of a machine.

A "composition of matter" "covers all compositions of two or more substances and includes all composite articles, whether they be results of chemical union, or of mechanical mixture, or whether they be gases, fluids, powders or solids." Shell Development Co. v. Watson, 149 F. Supp. 279, 280, 113 USPQ 265, 266 (D.D.C. 1957), aff'd, 252 F.2d 861, 116 USPQ 428 (D.C. Cir. 1958). A claimed signal is not matter, but a form of energy, and therefore is not a composition of matter.

The Supreme Court has read the term "manufacture" in accordance with its dictionary definition to mean "the production of articles for use from raw or prepared materials by giving to these materials new forms, qualities, properties, or combinations, whether by hand-labor or by machinery." Diamond v. Chakrabarty, 447 U.S. 303, 308, 206 USPQ 193, 196-97 (1980) (quoting American Fruit Growers, Inc. v. Brogdex Co., 283 U.S. 1, 11, 8 USPQ 131, 133 (1931), which, in turn, quotes the Century Dictionary). Other courts have applied similar definitions. See American Disappearing Bed Co. v. Arnaelsteen, 182 F. 324, 325 (9th Cir. 1910), cert. denied, 220 U.S. 622 (1911). These definitions require physical substance, which a claimed signal does not have. Congress can be presumed to be aware of an administrative or judicial interpretation of a statute and to adopt that interpretation when it re-enacts a statute without change. Lorillard v. Pons, 434 U.S. 575, 580 (1978). Thus, Congress must be presumed to have been aware of the interpretation of manufacture in American Fruit Growers when it passed the 1952 Patent Act.

A manufacture is also defined as the residual class of product. 1 Chisum, Sec. 1.02[3] (citing W. Robinson, The Law of Patents for Useful Inventions 270 (1890)). A product is a tangible physical article or object, some form of matter, which a signal is not. That the other two product classes, machine and composition of matter, require physical matter is evidence that a manufacture was also intended to require physical matter. A signal, a form

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of energy, does not fall within either of the two definitions of manufacture. Thus, a signal does not fall within one of the four statutory classes of Sec. 101.

On the other hand, from a technological standpoint, a signal encoded with functional descriptive material is similar to a computer-readable memory encoded with functional descriptive material, in that they both create a functional interrelationship with a computer. In other words, a computer is able to execute the encoded functions, regardless of whether the format is a disk or a signal.

These interim guidelines propose that such signal claims are ineligible for patent protection because they do not fall within any of the four statutory classes of Sec. 101. Public comment is sought for further evaluation of this question.

Guidelines, Annex IV(c) (emphasis supplied).

The guidelines specifically provide that "public comment is sought for further evaluation of this question." Thus, while the Guidelines propose that such signal claims are ineligible for patent protection, the Guidelines are non-binding on the Board of Patent Appeals and Interferences in this regard.

Additionally, the Board of Patent Appeals and Interferences should ignore this portion of the Guidelines because this portion of the Guidelines contradicts itself. The immediately preceding paragraph in the quoted text states that a signal encoded with functional descriptive material *is similar to a computer readable memory encoded with functional descriptive material in that they both create a functional interrelationship with a computer.* Then, in the next paragraph, the Guidelines states without further argument or reason that signal claims are ineligible for patent protection. These two statements contradict each other.

For example, a computer is a tangible thing. Thus, if a functional interrelationship is created with a tangible thing, then the signal encoded with functional descriptive material is itself created with a tangible thing. For this reason alone, signals containing functional descriptive material that interacts with a physical thing, as in claim 7, are patentable subject matter. If a computer program stored in a signal and a computer program stored on a hard disk both create functional interrelationships with a tangible thing, then no basis exists to assert that one is non-statutory when the other is not. Because one is statutory, both must be statutory.

Furthermore, if the Patent Office were to decide that such signal claims were not patentable

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subject matter, then the Patent Office would completely eviscerate all computer program product claims from an infringement perspective; indeed, the Patent Office would eviscerate all software-related claims. For example, a potential infringer could knowingly produce a product or a method that met every single feature of a computer program product claim, but then implement the product using only a "signal." By avoiding placing computer program products into a so-called "tangible medium," the potential infringer could avoid all liability simply by pointing out that no-one can patent a process embedded in a signal. Thus, if the recommendation of the Guidelines were accepted, then *all claims, in every patent, that are directed to computer program products would be utterly worthless.*

Applicants urge the Board of Patent Appeals and Interferences to reject this clearly unacceptable outcome and instead decide to implement the will of Congress that computer program product claims are worthy of patent protection. Additionally, the Board should reverse the rejection because, as shown above and further below, the conclusion of the Guidelines in this regard is clearly in error when subjected to rigorous analysis under accepted case law.

Furthermore, the examiner asserts that claim 7 is not limited to tangible embodiments. No basis is present for holding a computer usable medium claim non-statutory because the medium may be allegedly "intangible." The MPEP states:

> In this context, "functional descriptive material" consists of **data structures** and computer programs which **impart functionality when employed as a computer component**. (The definition of "data structure" is "a physical or logical relationship among data elements, designed to support specific data manipulation functions." The New IEEE Standard Dictionary of Electrical and Electronics Terms 308 (5th ed. 1993).) "Nonfunctional descriptive material" includes but is not limited to music, literary works and a compilation or mere arrangement of data.
>
> **When functional descriptive material is recorded on some computer-readable medium it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized.** Compare *In re Lowry*, 32 F.3d 1579, 1583-84, 32 USPQ2d 1031, 1035 (Fed. Cir. 1994) (claim to data structure stored on a computer readable medium that increases computer efficiency held statutory) and *Warmerdam*, 33 F.3d at 1360-61, 31 USPQ2d at 1759 (claim to computer having a specific data structure stored in memory held statutory product-by-process claim) with *Warmerdam*, 33 F.3d at 1361, 31 USPQ2d at 1760 (claim to a data structure *per se* held nonstatutory). **(emphasis added)**

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MPEP 2106 (IV)(B)(1)

Claim 7 recites clearly functional descriptive material since it imparts functionality when employed as a computer component. Moreover, the functional descriptive material of claim 7 is recorded on "some" computer-readable medium.

In the above context, the term "some" means "any" computer-readable medium. The MPEP does not draw any distinctions between one type of media that is considered to be statutory and another type of media that is considered to be non-statutory. To the contrary, the MPEP clearly states that as long as the functional descriptive material is in "some" computer-readable medium, it should be considered statutory. The only exceptions to this statement in the MPEP are functional descriptive material that does not generate a useful, concrete and tangible result, e.g., functional descriptive material composed completely of pure mathematical concepts that provide no practical result. Claim 7 clearly recites a useful, concrete and tangible result in that information technology components, including physical components, are integrated in an end-to-end application. This claimed invention is not just some disembodied mathematical concept or abstract idea.

Thus, claim 7 is directed to functional descriptive material that provides a useful, concrete and tangible result, and which is embodied on "some" computer-readable medium. Therefore, claim 7 is statutory and the rejection of the claims under 35 U.S.C. § 101 has been overcome.

C.   **GROUND OF REJECTION 3 (Claims 1-18)**

C.1.   **Claims 1, 4-7, 10-13, and 16-18**

C.1.i.   *Response to the Rejection*

The examiner rejects claims 1-18 as anticipated by *Cox*. Applicants first address the rejection of claim 1, which is a representative claim of this grouping of claims. Regarding claim 1, the examiner states that:

> The Cox patent discloses:
>
> - **decomposing a business process into a set of enabling applications** (column 4, lines 3-12 and lines 26-44)
>
> - **documenting the technology elements and support organizations which are necessary to execute and manage the enabling applications of**

the business process (column 4, lines 13-25; "shoes.com" is an example of a support organization)

- deploying required monitors for the business process enabling technology (column 4, lines 65-67)

- developing cross-platform contextual correlation logic and rules (column 5, lines 3-12)

- mapping information technology severity to business impact severity, said mapping describing how technical problems relate to business processes including said business process; quantifying, using said mapping, business losses due to particular technical failures; and developing an end-to-end business process event management platform (column 5, lines 36-51).

Final office action of February 24, 2006, pp. 4-5 (emphasis in original).

A prior art reference anticipates the claimed invention under 35 U.S.C. § 102 only if every element of a claimed invention is identically shown in that single reference, arranged as they are in the claims. *In re Bond*, 910 F.2d 831, 832, 15 U.S.P.Q.2d 1566, 1567 (Fed. Cir. 1990). All limitations of the claimed invention must be considered when determining patentability. *In re Lowry*, 32 F.3d 1579, 1582, 32 U.S.P.Q.2d 1031, 1034 (Fed. Cir. 1994). Anticipation focuses on whether a claim reads on the product or process a prior art reference discloses, not on what the reference broadly teaches. *Kalman v. Kimberly-Clark Corp.*, 713 F.2d 760, 218 U.S.P.Q. 781 (Fed. Cir. 1983). The reference does not identically show each and every feature, arranged as they are in the present claim 1.

For ease of reference, claim 1 is reproduced again below:

1.   A method for integrating information technology components into a single end-to-end application, comprising:
        decomposing a business process into a set of enabling applications;
        documenting the technology elements and support organizations which are necessary to execute and manage the enabling applications of the business process;
        deploying required monitors for the business process enabling technology;
        developing cross-platform contextual correlation logic and rules;
        mapping information technology severity to business impact severity, said mapping describing how technical problems relate to business processes including said business process;
        quantifying, using said mapping, business losses due to particular

technical failures; and
     developing an end-to-end business process event management
platform.

Cox does not anticipate claim 1 because Cox does not teach the claimed feature of "documenting the technology elements and support organizations which are necessary to execute and manage the enabling applications of the business process." The examiner cites the following portion of Cox for the assertion that Cox shows this claimed feature:

> In FIG. 1, there is a cluster, 110, of local management systems. Each of the local service management systems may be responsible for the management of an infrastructure component in 115. For example, local service management system 110b may be used to monitor the performance of a database for shoes.com. The performance information about the components of an eService infrastructure may be sent through dispatcher 130 and stored in the global data repository from where a global eService management system 150 may integrate the information from local service management systems 110 to assess the overall performance of the eService. In FIG. 1, dispatcher 130 may represent a collective that may comprises one or more dispatchers.

Cox, col. 4, l. 13-25.

However, this portion of Cox does not teach that the *support organizations* should be documented along with the technology elements. In fact, the cited text as a whole and the reference as a whole do not suggest the documenting of support organizational data. Instead, the reference focuses only on the technological systems in the decomposition of a business process. For this reason alone, Cox fails to teach each and every feature of claim 1.

Furthermore, Cox also fails to show additional features of claim 1, namely, "developing cross-platform contextual correlation logic and rules." The examiner asserts otherwise, citing the following portion of Cox as teaching this claimed feature:

> Each BeX in a local service management system may be attached to an infrastructure component and is designed to monitor the behavior of the component. A BeX may access the observation data from the data providers and analyze the behavior of an infrastructure component based on such data. *Each BeX reports any detected abnormal behavior of individual components, in the form of events, to a blackboard server located in the service manager so that its findings may be shared among different BeXs. The Service manager routes events from various BeXs to a local ecology pattern detector where all the events are considered as a whole in order to detect abnormal behavior of the local system. Detected ecological pattern*

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> events may be reported, together with some of the individual events that
> have high priorities, to dispatcher 130.

Cox, col. 4, l. 65 through col. 5, l. 12. (Emphasis to show portions cited by the examiner.)

The cited text fails to teach the cross-platform nature of the contextual correlation logic and rules as recited in claim 1. The cited text does state that a service manager can share findings among different BeX. *Cox* defines a BeX as follows:

> An embodiment of the invention is illustrated that is related to the adaptive feedback control capability of an eService management system. *The present invention enables adaptive eService management by learning the impact of an infrastructure on the eService that it supports and then by using the learned experience to adjust the Behavior eXperts (BeXs) at different levels of the corresponding eService management system.* Both the learning and adjusting are in accordance with the eService business process and the dynamic operational status of the eService environment. With such learning and self-adjusting behavior of an eService management system, the distributed BeXs evolve towards an optimal state of the eService management to ensure the quality of the eService. The eService business model dictates the learning and the feedback control.

Cox, col. 3, ll. 51-65 (emphasis supplied).

Thus, a BeX is a software program called a behavior expert. The behavior expert is a component in the eService management system that *Cox* describes. However, nothing in the cited text indicates that the BeX or the service manager supports the development of *cross-platform cross* contextual correlation logic and rules, as recited in claim 1.

The specification describes a "platform" as follows:

> Businesses have numerous critical processes which are enabled by multiple, disparate technologies. *In today's IT environment, there is often a support group for each type of technology, each with its own "tower" management platform.* In addition, each group has its own management tools typically focused on monitoring a specific subsystem or element within the IT infrastructure, with little or no capability to evaluate how that component actually impacts the business process from an end-to-end perspective. Because the management towers are often very disjoint, complex problems are often very difficult to quickly identify, often lead to multiple support personnel being needlessly dispatched, and have no concept of business impact. This is particularly evident in the current event management and business process "view" tools which only consider the "IT severity" of an event as opposed to mapping a particular anomaly to a business impact. The following example will help illustrate this concept.

One server must communicate to another server, via a network route, in order to complete a particular business transaction. If the network failed, or went down, from an IT perspective the network event generated by this failure might be "fatal" or completely down. At the network support layer this IT component failure would trigger immediate support attention. However, at the business process layer, the network failure is only "fatal" or fully down if there is a current request for these two systems to communicate. If no one needs the business process at the point of failure then the fact that a network is down is important, but to the business, it is transparent. At the event level of the network failure there is no intelligence to determine whether or not the business process has actually been impacted and will always show "fatal" when it goes down. This means that each IT event must be mapped to a business impact within the context of the business process. The present invention enables this mapping of IT severity to business impact severity.

Specification, p. 5, l. 4 through p. 6, l. 9 (emphasis supplied).

Thus, a platform is a computer and/or an operating system, typically a server, that implements a business process. The specification also refers to the platforms as "towers." Because the management towers are often very disjoint, complex problems are often very difficult to quickly identify, often lead to multiple support personnel being needlessly dispatched, and have no concept of business impact. Claim 1 addresses this problem be specifically providing for development of *cross-platform* rules and logic, as recited in claim 1.

In stark contract, *Cox* only describes an interaction between different *applications* known as BeX. *Cox* provides no indication that the BeX operate on different platforms. *Cox* provides no indication that BeX can develop contextual correlation logic and rules, as recited in claim 1. *Cox* provides no support for the examiner's assertion that *Cox* teaches this claimed feature because *Cox* is unconcerned with cross-platform issues with respect to the BeX. In fact, *Cox* appears to suggest that different BeX can even be operated on *the same server*, which by definition would not provide for development of cross-platform logic and rules, as recited in claim 1.

Additionally, nothing else in *Cox* teaches the cross-platform nature of the contextual correlation logic and rules as recited in claim 1. Therefore, the reference again fails to identically show each and every feature of the claim. Accordingly, *Cox* does not anticipate claim 1.

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C.1.ii. *Rebuttal to the Examiner's Response*

In response to the above arguments, the examiner states that:

> Examiner strongly disagrees with applicant's assertion that Cox fails to disclose the claimed limitations recited in claim 1. Cox clearly shows each and every limitation in claim 1.
>
> As previously pointed out in the last Office Action (Mailed on 09/09/2005, par. 13), Cox teaches documenting the technology elements and support organizations which are necessary to execute and manage the enabling applications of the business process (column 4, lines 13-25; "shoes.com" is an example of a support organization).
>
> Furthermore, applicant has failed to point out the error in the citation provided for the claim limitation "developing cross-platform contextual correlation logic and rules".
>
> In addition, see the rejection above in paragraph 11 for rejection to claim 1.

Final office action of February 24, 2006, p. 10.

Regarding the feature in claim 1 of "developing cross-platform contextual correlation logic and rules," Applicants have fully and completely proved that *Cox* does not show this claimed feature in this appeal brief. Applicants respectfully request that the Board of Patent Appeals and Interferences consider the facts shown above and overturn the rejection.

Regarding the claimed feature of "documenting technology elements and support organizations," as recited in claim 1, the strength of the examiner's disagreement is irrelevant. The fact is that *Cox* does not teach this claimed feature.

The examiner asserts that "shoes.com" is an example of a support organization. The examiner also points to the following text in *Cox*:

> In FIG. 1, there is a cluster, 110, of local management systems. Each of the local service management systems may be responsible for the management of an infrastructure component in 115. For example, local service management system 110b may be used to monitor the performance of a database for shoes.com. The performance information about the components of an eService infrastructure may be sent through dispatcher 130 and stored in the global data repository from where a global eService management system 150 may integrate the information from local service management systems 110 to assess the overall performance of the eService. In FIG. 1, dispatcher 130 may represent a collective that may comprises one or more dispatchers.

Cox, col. 4, ll. 13-25.

The cited text states that a local service management system may be used to monitor the performance of a database for an entity known as "shoes.com." However, "shoes.com" is not a support organization as recited in claim 1. The examiner's assertions to the contrary are clearly incorrect.

Applicant's specification describes support organizations as follows:

> After business decomposition, the next step is technical decomposition (step 402). This involves identifying and documenting all of the technology elements and support organizations which are necessary to execute the enabling applications of a particular business process. As the technology is identified, it is important to have the subject matter experts explain the events, monitors, and management systems that are currently in place. With the business process decomposed into its parts and traced to the relevant IT technology components, a Business System Management (BSM) configuration database can be built (step 403).

Specification, p. 12, ll. 6-17.

Thus a support organization is a thing which is necessary to execute the enabling applications of a particular business process. In stark contrast, *Cox* describes "shoes.com" as a database which is monitored. As a monitored object, the database of "shoes.com" is not *necessary to execute the enabling applications* of a particular business process. Therefore, "shoes.com" is not a "support organization," as recited in claim 1. Hence, *Cox* does not teach the claimed feature of, "documenting the technology elements and support organizations which are necessary to execute and manage the enabling applications of the business process," as recited in claim 1. Accordingly, *Cox* does not anticipate claim 1 or any other claim in this grouping of claims.

C.2.   Claims 2, 8, and 14

C.2.i.   *Response to the Rejection*

Applicants now address the rejection of claim 2, which is a representative claim in this grouping of claims. Claim 2 is as follows:

> 2.   The method according to claim 1, wherein the step of decomposing the business process further comprises developing an application model which describes the interactions, interdependencies and interfaces of all the business process enabling applications.

Claim 2 depends from claim 1. Therefore, *Cox* also does not anticipate claim 2 for the reasons presented above, at least by virtue of the dependency of claim 2 on claim 1.

In addition, *Cox* does not teach other features of claim 2. The examiner asserts otherwise, stating that:

> The Cox patent discloses:
>
> **wherein the step of decomposing the business process further comprises developing an application model which describes the interactions, interdependencies and interfaces of all the business process enabling applications (column 4, lines 26-44; "business process model" is** interpreted as *application model*; and further see col. 4, lines 35-40 "In Fig. 1, business process model 120 is derived from eService 105. It *dictates both how the infrastructure components should be managed by local service management systems 110 and how global eService management system integrates the information from systems 110 to assess the overall performance of infrastructure 115."* (emphasis added), which shows that ht ebusienss process model 120 describes the *interactions, interdependencies and interfaces* of all the business process enabling applications.).

Final office action of February 24, 2006, pp. 5-6 (emphasis in original). The quoted portion of *Cox* is as follows:

> The quality of an eService depends on various factors. Such factors are related to both the performance of individual infrastructure components and how the business process of the eService takes place within the infrastructure. Different components may impact the quality of eService differently, depending on the role of the component with respect to the business process. Therefore, the strategy to manage the infrastructure that supports an eService is directly related to or dictated by the business process model of the eService. In FIG. 1, business process model 120 is derived from eService 105. It dictates both how the infrastructure components should be managed by local service management systems 110 and how global eService management system integrates the information from systems 110 to assess the overall performance of infrastructure 115. The knowledge about business process model 120 may be distributed in local service management systems 110a, 110b, . . . , 110c.

Cox, col. 4, ll. 26-44.

The cited text and the reference as a whole fail to disclose *an application model* as claimed. The reference teaches modeling the eService from a business process point of view. Such a model is not the same as an application model that shows the various technology applications and their

inter-connections. *Cox* makes this distinction clear by emphasizing, "[the business process model] dictates both how the infrastructure components *should be managed* by local service management systems 110 and how global eService management system *integrates the information* from systems 110 to assess the overall performance of infrastructure 115." *Id.*, col. 4, ll. 37-40.

Cox's model is concerned with suggesting a desirable way of managing the infrastructure components using the model's monitors based on the business process model, and integration of information from these monitors. The application model as claimed, on the other hand, is concerned with describing the interactions, interdependencies, and interfaces of the business process enabling applications. The nature of features taught by the reference and the features claimed are distinct from each other, and the teachings of *Cox* do not read on the claimed features.

Further, the business process model in *Cox* does not teach the "*interactions, interdependencies,* and the *interfaces* of the enabling applications." A component of the business process model can simply be a conceptual, human or procedural step, and need not necessarily employ unlike a component of an application as an application model. Thus, a component of a business process model need not necessarily employ an application and therefore need not have any application interactions, interdependencies, and interfaces that must be defined. The reference points out the existence of API (Application Program Interface) only in the context of the Global eService Management System. The pertinent section in *Cox* states:

> The performance information gathered from different local service
> management systems and routed through the dispatcher and stored in global
> data repository 770 is accessed by global eService management system 150.
> It comprises a global ecology controller, an eService manager, a design
> studio, a notifier, and a port for external APIs.

Cox, col. 5, ll. 30-36.

The cited text does not identify the claimed feature of "interfaces of the enabling applications" because *Cox's* global eService management system itself is not a business process enabling application. For example, *Cox* provides that:

> Therefore, the strategy to manage the infrastructure that supports an
> eService is directly related to or dictated by the business process model of
> the eService. In FIG. 1, business process model 120 is derived from
> eService 105. It dictates both how the infrastructure components should be
> managed by local service management systems 110 and how global
> eService management system integrates the information from systems 110

to assess the overall performance of infrastructure 115.

Cox, col. 4, ll. 32-41.

The global eService management system is not an enabling application and therefore the global eService management API is not an interface to an enabling application. The global eService management system integrates and assesses the performance information from various local service management systems, which are themselves only akin monitors to the enabling applications. Thus, *Cox's* global eService management system is several degrees removed from the enabling applications. Moreover, the APIs extend only to the local service management systems and not to the enabling applications themselves. Therefore, *Cox's* business process model does not also teach or suggest the application model, interfaces, interdependencies, and the interfaces of the enabling applications as claimed. Therefore, *Cox* does not anticipate claim 2.

C.2.ii. *Rebuttal to the Examiner's Response*

In response, the examiner states that:

> Examiner strongly disagrees with applicant's assertion that Cox fails to disclose the claimed limitations recited in claim 2. Cox clearly shows each and every limitation in claim 2.
>
> As previously pointed out in the last Office Action (Mailed on 09/09/2005, par. 13), Cox teaches wherein the step of decomposing the business process further comprises developing an *application model* which describes the *interactions, interdependencies and interfaces* of all the business process enabling applications (column 4, lines 26-44; "business process model" is interpreted as *application model*; and further see col. 4, lines 35-40 "In Fig. 1, business process model 120 is derived from eService 105. It *dictates both how the infrastructure components should be managed by local service management systems 110 and how global eService management system integrates the information from systems 110 to assess the overall performance of infrastructure 115.*" (emphasis added), which shows that the business process model 120 describes the *interactions, interdependencies and interfaces* of all the business process enabling applications.)
>
> In addition, see the rejection above in paragraph 11 for rejection to claim 2.

Final office action of February 24, 2006, p. 11 (emphasis in original).

Again, the strength of the examiner's disagreement is irrelevant. The only question is whether *Cox* actually teaches the features of claim 2. *Cox* does not teach all of the features of

claim 2.

The examiner wholly failed to address Applicant's arguments. As shown above, a component of a business process model need not necessarily employ an application, and therefore need not have any application interactions, interdependencies, and interfaces that must be defined. Thus, a business process model is not an application model, as asserted by the examiner. Furthermore, the APIs extend only to the local service management systems and not to the enabling applications themselves. Therefore, *Cox's* business process model does not also teach or suggest the application model, interfaces, interdependencies, and the interfaces of the enabling applications as claimed. The examiner has not shown otherwise.

In light of the fact that *Cox* does not teach the claimed application model and in light of the fact that the examiner has failed to show otherwise, *Cox* does not anticipate claim 2 or any other claim in this grouping of claims. Accordingly, Applicants request that the Board of Patent Appeals and Interferences reverse the rejection of claim 2 and direct the examiner to allow the claim.

C.3.   Claims 3, 9, and 15

C.3.i.   *Response to the Rejection*

Applicants now address the rejection of claim 3, which is a representative claim in this grouping of claims. Claim 3 is as follows:

> 3.   The method according to claim 1, further comprising building a business system management configuration database.

Claim 3 depends from claim 1. Therefore, *Cox* also does not anticipate claim 3 for the reasons presented above, at least by virtue of the dependency of claim 3 on claim 1.

In addition, *Cox* does not teach other features of claim 3. The examiner asserts otherwise, stating that:

> The Cox patent discloses:
>
> **- further comprising building a business system management configuration database** (column 5, lines 30-35; "global data repository 770" is interpreted as *business system management configuration database*).

Final office action of February 24, 2006, p. 6 (emphasis in original). The cited section of *Cox* provides:

> The performance information gathered from different local service management systems and routed through the dispatcher and stored in global data repository 770 is accessed by global eService management system 150. It comprises a global ecology controller, an eService manager, a design studio, a notifier, and a port for external APIs.

Cox, col. 5, ll. 30-35.

Cox fails to disclose the *business systems management configuration database* as claimed. In the cited section, and elsewhere, *Cox* only teaches a database of performance information collected from different local service management systems. All databases are not equal. The contents and the organization of contents within each database's structure differentiate databases from one another in their characteristics, behavior, and use. In the case at hand, the *Cox* database is wholly dissimilar to the claimed business systems management configuration database, and the examiner has not established otherwise. For this reason, *Cox* does not show the features of claim 3.

Even if one assumes that the performance information database described in *Cox* is somehow similar to the claimed business systems management configuration database, performance information is only an optional supplementary subset of information pertaining to a systems management configuration. A person of ordinary skill in the art would not expect a database of performance information to contain other numerous parameters and corresponding functions that describe the various management aspects of a typical systems configuration.

Therefore, contrary to the examiner's belief, *Cox's* performance information database does not teach or suggest the business systems management configuration database as claimed by Applicants. Accordingly, *Cox* does not anticipate the invention of claim 3.

C.3.ii. *Rebuttal to the Examiner's Response*

In response, the examiner states that:

> Examiner strongly disagrees with applicant's assertion that Cox fails to disclose the claimed limitations recited in claim 3. Cox clearly shows each and every limitation in claim 3.

> As previously pointed out in the last Office Action (Mailed on 09/09/2005, par. 13), Cox teaches further comprising building a *business system management configuration database* (column 5, lines 30-35; "global data repository 770" is interpreted as *business system management configuration database*).

> Furthermore, in response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies are not recited in the rejected claim(s). Although the claims are interpreted in the light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).
>
> In addition, see the rejection above in paragraph 11 for the rejection to claim 3.

Final office action of February 24, 2006, p. 11 (emphasis in original).

Again, the strength of the examiner's disagreement is irrelevant. The only question is whether *Cox* actually teaches the features of claim 2. *Cox* does not teach all of the features of claim 2.

As a first matter, the examiner's statement that Applicants relied on features not recited in the rejected claim is disingenuous. In both the response to office action filed December 9, 2006 and in this appeal brief Applicants directly asserted, multiple times, that *Cox* does not teach the claimed feature of, "building a business system management configuration database." Specifically, Applicants proved that *Cox* does not show a business system management configuration database and, for this reason, *Cox* could not show this claimed feature.

Applicants did describe how a "business system management configuration database" is different from *Cox*'s "global data repository" in order to refute the examiner's erroneous assertion that the two are equivalent. However, Applicants still argued, and continue to argue, only that *Cox* does not teach the recited features of claim 3.

Cox does not provide any support for the claimed feature of "building a business system management configuration database." Therefore, *Cox* does not anticipate claim 3 or any other claim in this grouping of claims. In further light of the fact that the examiner has failed to rebut Applicant's arguments, Applicants request that the Board of Patent Appeals and interferences reverse the rejection and direct that the claim be allowed.

D.   CONCLUSION

As shown above, *Cox* does not anticipate claims 1, 2, or 3. Similarly, *Cox* does not anticipate any of the remaining claims for similar reasons. Therefore, Applicants request that the Board of Patent Appeals and Interferences reverse the rejections. Additionally, Applicants request that the Board direct the examiner to allow the claims.
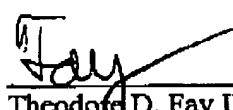
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CLAIMS APPENDIX

The text of the claims involved in the appeal is as follows:

1.   A method for integrating information technology components into a single end-to-end application, comprising:

decomposing a business process into a set of enabling applications;

documenting the technology elements and support organizations which are necessary to execute and manage the enabling applications of the business process;

deploying required monitors for the business process enabling technology;

developing cross-platform contextual correlation logic and rules;

mapping information technology severity to business impact severity, said mapping describing how technical problems relate to business processes including said business process;

quantifying, using said mapping, business losses due to particular technical failures; and

developing an end-to-end business process event management platform.

2.   The method according to claim 1, wherein the step of decomposing the business process further comprises developing an application model which describes the interactions, interdependencies and interfaces of all the business process enabling applications.

3.   The method according to claim 1, further comprising building a business system management configuration database.

4.   The method according to claim 1, further comprising integrating the business process event management platform into a preexisting event management process.

5.   The method according to claim 4, further comprising integrating the platform at both the business and technology level through a defined input/output event management interface.

6.   The method according to claim 1, wherein the event management platform is developed across two or more separate business entities.

7.   A computer program product in a computer readable medium, for use in a data processing system, for integrating information technology components into a single end-to-end application, comprising:

    instructions for decomposing a business process into a set of enabling applications;

    instructions for documenting the technology elements and support organizations which are necessary to execute and manage the enabling applications of the business process;

    instructions for deploying required monitors for the business process enabling technology;

    instructions for the development of cross-platform contextual correlation logic and rules;

    instructions for mapping information technology severity to business impact severity, said mapping describing how technical problems relate to business processes including said business process;

    instructions for quantifying, using said mapping, business losses due to particular technical failures; and

    instructions for developing an end-to-end business process event management platform.

8.   The computer program product according to claim 7, wherein the instructions for decomposing the business process further comprise instructions for developing an application model which describes the interactions, interdependencies and interfaces of all the business process enabling applications.

9.   The computer program product according to claim 7, further comprising instructions for building a business system management configuration database.

10.   The computer program product according to claim 7, further comprising instructions for integrating the business process event management platform into a preexisting event management process.

11.   The computer program product according to claim 10, further comprising instructions for integrating the platform at both the business and technology level through a defined input/output event management interface.

12.   The computer program product according to claim 7, wherein the event management platform is developed across two or more separate business entities.

13.   A system having means for integrating information technology components into a single end-to-end application, comprising:

        means for decomposing a business process into a set of enabling applications;

means for documenting the technology elements and support organizations which are

necessary to execute the enabling applications of the business process;

means for deploying required monitors for the business process enabling technology;

means for developing the cross-platform contextual correlation logic and rules;

means for mapping information technology severity to business impact severity, said

mapping describing how technical problems relate to business processes including said business

process;

using said mapping for quantifying business losses due to particular technical failures; and

means for developing an end-to-end business process event management platform.

14.   The system according to claim 13, wherein the means for decomposing the business

process further comprise means for developing an application model which describes the

interactions, interdependencies and interfaces of all the business process enabling applications.

15.   The system according to claim 13, further comprising means for building a business system

management configuration database.

16.   The system according to claim 13, further comprising means for integrating the business

process event management platform into a preexisting event management process.

17.   The system according to claim 16, further comprising means for integrating the platform at

both the business and technology level through a defined input/output event management

interface.

18. The system according to claim 13, wherein the event management platform is developed

across two or more separate business entities.

EVIDENCE APPENDIX

There is no evidence to be presented.

RELATED PROCEEDINGS APPENDIX

There are no related proceedings